

REMARKS

Claims 1-23 are pending in the application. Claims 1 and 6 have been amended to indicate that the alcohols and polyisocyanates react to form polyurethane paint films in the absence of atmospheric moisture or water. Support for the amendments can be found at page 4, lines 5-6, page 5, line 19 to page 6, line 10. Claim 21 has been amended to correct a typographical error.

Claim Objection

Claim 21 is objected to as failing to further limit Claim 18. Claim 21 has been amended to properly depend from Claim 20. As Claim 21 now further limits Claim 20, the objection should be withdrawn.

Rejections under 35 U.S.C. § 102(b)

Claims 1, 2, 4, 6, 7, 9-11, 16-17, 20, and 21 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,204, 051 to Wellner et al. (hereinafter "Wellner"). Applicants respectfully request reconsideration.

The present invention is directed to a coating system that includes organic polyisocyanates with at least two isocyanate groups, at least difunctional alcohols that are not present in their O-H acid form, and a catalyst to accelerate the alcohol-isocyanate reaction, wherein the alcohols. The polyisocyanates react to form polyurethane paint films in the absence of atmospheric moisture or water.

Wellner discloses a process for the preparing compounds having blocked hydroxyl groups, which are converted by the action of moisture into compounds having free hydroxyl groups. Polyurethanes are prepared where mixtures containing polyisocyanates react when the blocked hydroxyl groups are converted into polyols by a hydrolysis reaction with water.

Wellner requires that the blocked polyols react with water to free hydroxyl groups that can react with polyisocyanates to form polyurethanes. In the present invention, Applicants discovered difunctional alcohols, not present in their O-H acid form, and catalysts that accelerate the alcohol-isocyanate reaction with polyisocyanates to form polyurethanes.

In order to anticipate a claim, a prior art reference must disclose every limitation in a claim.

As the present claims exclude the presence of water for reaction, while Wellner requires it, Wellner cannot anticipate the claims. Thus, the rejection of Claims 1, 2, 4, 6, 7, 9-11, 16-17, 20, and 21 under 35 U.S.C. §102(b) should be withdrawn.

Rejections under 35 U.S.C. § 103(a)

Claims 5, 13, 22, and 23 stand rejected under 35 U.S.C. §103(a) as being obvious over Wellner. The Examiner suggests that it would have been obvious to have employed zinc(II) ethyl hexanoate as a catalyst. Applicants respectfully request reconsideration.

The discussion above regarding Wellner is incorporated herein.

In the present invention, Applicants sought to avoid moisture, since the absorption of atmospheric moisture during the stoving reaction leads to formation of ureas, which make full curing of the paint film more difficult due to a reaction at the paint surface and lead to paint properties differing from those expected of the desired polyurethane films. The presence of water for the formation of a polyurethane paint is therefore undesirable (see page 5, lines 24-30 of the specification).

Wellner teaches away from this objective of the present invention.

The reaction between the polyols which have been blocked according to the invention and the isocyanate component takes place after the action of water, e.g. atmospheric moisture, on mixtures containing the two components. It is surprisingly found that hydrolysis of the blocked polyols and their subsequent reaction with the isocyanate groups of the polyisocyanate component evidently proceeds more rapidly than the direct reaction between isocyanate groups and water. (Col. 7, line 62 to Col. 8, line 2).

Wellner does not disclose, teaches away from, and does not suggest mixtures of difunctional alcohols that are not present in their O-H acid form, catalysts, and polyisocyanates that react to form polyurethane paint films in the

absence of atmospheric moisture or water as in the present invention. Thus, the claims are not obvious over Wellner and the rejection of Claims 5, 13, 22, and 23 under 35 U.S.C. §103(a) should be withdrawn.

Claims 3, 8, 15, 18, and 19 stand rejected under 35 U.S.C. §103(a) as being obvious over Wellner in view of U.S. Patent No. 5,962,588 to Iwamura et al. (hereinafter "Iwamura"). The Examiner suggests that it would have been obvious to have employed dihydrofuran as the blocking agent. Applicants respectfully request reconsideration.

Iwamura discloses a curable resin composition incorporating an oligomer containing blocked hydroxyl group, an epoxy-group containing compound, hydrolytic silyl-group containing compound, and a dissociation catalyst and/or curing catalyst.

There is no disclosure in Iwamura that would instruct one skilled in the art to modify Wellner to employ mixtures of difunctional alcohols that are not present in their O-H acid form, catalysts, and polyisocyanates that react to form polyurethane paint films in the absence of atmospheric moisture or water as in the present invention.

As the combination of Wellner and Iwamura do not disclose the claimed invention, the combined cited art cannot render the claims obvious. Therefore, the rejection of Claims 3, 8, 15, 18, and 19 under 35 U.S.C. §103(a) should be withdrawn.


CONCLUSION

Applicants contend that the claim amendments add no new matter and find support in the specification and original claims.

Applicants submit that the instant application is in condition for allowance. Accordingly, reconsideration and a Notice of Allowance are respectfully requested for Claims 1 - 23. If the Examiner is of the opinion that the instant application is in

condition for other than allowance, she is invited to contact the Applicant's agent at the telephone number listed below, so that additional changes to the claims can be discussed.

Respectfully submitted,

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